

CLAIMS

1. A mobile terminal having two parts connected to each other by a hinge, the hinge comprising:

- 5 - a helical spring having a longitudinal axis, the spring comprising one or more wound strands of material, each strand having two ends,
- a first hinge part extending into the helical spring, contacting an inner part of the helical spring at a first position or area along the longitudinal axis, and being connected to or attached to a first part of the two parts, and
- 10 - a second hinge part contacting the one or more strands of the helical spring and being connected to or attached to a second part of the two parts,

the spring facilitating that:

- 15 - rotation of the first hinge part in a first direction around the longitudinal axis and in relation to the second hinge part will provide a first, lower friction between the first hinge part and the helical spring, and
- rotation of the first hinge part in a second direction, being opposite to the first direction, around the longitudinal axis and in relation to the second hinge part will provide a second, higher friction between the first hinge part and the helical spring

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the terminal further comprising:

- 25 - release means for increasing a diameter of the helical spring at the first position or area in order to reduce the second, higher friction between the first hinge part and the helical spring during rotation of the first hinge part in the second direction, the second, higher friction being reduced to a third friction, and
- biasing means for providing a rotation of the first hinge part in the second direction when the release means are operated,

30 the biasing means providing a force exceeding a force required to overcome the third friction but being lower than a force required to overcome the second friction.

2. A mobile terminal according to claim 1, wherein the second hinge part extends into the helical spring, contacting the inner part of the helical spring at a second position or area along the longitudinal axis.
- 5 3. A mobile terminal according to claim 1, wherein the spring comprises a non-helical part at an end of each of the one or more strands, and where the second hinge part contacts the non-helical part.
- 10 4. A mobile terminal according to any of the preceding claims, wherein one end of each of the strand(s) of the spring is fixed in relation to the second hinge part and wherein the release means is adapted to displace the other end(s) of the strand(s) from a first position to a second position.
- 5 5. A mobile terminal according to claim 4, wherein the release means is adapted to not be rotated in relation to the second hinge part.
- 15 6. A mobile terminal according to any of the preceding claims, further comprising locking means for maintaining the parts in a predetermined rotational angle even when the release means are operated.
7. A mobile terminal according to any of the above claims, wherein the release means comprises, for each hinge, a wedge-shaped element adapted to be translated and displace the end(s).
- 20 8. A mobile terminal according to any of the above claims, wherein the release means comprises, for each hinge, a flexible element engaging the end(s), the end(s) being adapted to bias the flexible element into a first, deformed state when in the first position, and the release means comprising means for bringing the flexible element into a first, regular state and thereby bringing the end(s) into the second position.
- 25 9. A mobile terminal according to claim 8, wherein the flexible element is hollow and wherein the means for bringing comprise a means adapted to be translated into the hollowness of the flexible element.
10. A mobile terminal according to claim 8 or 9, wherein the bringing means are adapted to be translated into and out of the flexible element and are biased in a direction out of the hollowness.

11. A hinge for facilitating rotational movement of a first hinge part in relation to a second hinge part and around a rotational axis of the hinge, the hinge comprising:

- a helical spring having a longitudinal axis along the rotational axis, the spring comprising one or more wound strands of material, each strand having two ends and a part extending outside the helical spring,
- the first hinge part extending into the helical spring, contacting an inner part of the helical spring at a first position or area along the longitudinal axis, and
- a second hinge part being attached to the extending parts of each of the one or more strands of the helical spring,

the spring facilitating that:

- rotation of the first hinge part in a first direction around the longitudinal axis and in relation to the second hinge part will provide a first, lower friction between the first hinge part and the helical spring, and
- rotation of the first hinge part in a second direction, being opposite to the first direction, around the longitudinal axis and in relation to the second hinge part will provide a second, higher friction between the first hinge part and the helical spring.

12. A hinge according to claim 11, the hinge further comprising release means for increasing a diameter of the helical spring at the first position or area in order to reduce the second, higher friction between the first hinge part and the helical spring during rotation of the first hinge part in the second direction, the second, higher friction being reduced to a third friction

13. A hinge according to claim 12, the hinge further comprising biasing means for providing a rotation of the first hinge part in the second direction when the release means are operated, the biasing means providing a force exceeding a force required to overcome the third friction but being lower than a force required to overcome the second friction.

14. A hinge according to any of claims 12 or 13, wherein the release means comprises, for each hinge, a wedge-shaped element adapted to be translated and displace the end(s).

15. A hinge according to any of claims 12 or 13, wherein the release means comprises, for each hinge, a flexible element engaging the end(s), the end(s) being adapted to bias the flexible element into a first, deformed state when in the first position, and the release means

comprising means for bringing the flexible element into a first, regular state and thereby bringing the end(s) into the second position.

16. A hinge according to claim 15, wherein the flexible element is hollow and wherein the means for bringing comprise a means adapted to be translated into the hollowness of the flexible element.

17. A hinge according to claim 15 or 16, wherein the bringing means are adapted to be translated into and out of the flexible element and are biased in a direction out of the hollowness.

18. A method of operating a mobile terminal according to any of claims 1-10, the method comprising:

- operating the release means so as to have the biasing means rotate the first hinge part from an initial position in the second direction in relation to the second hinge means through a first angle to a second position,
- disengaging the release means,
- rotating the first hinge part in the second direction and through a second angle being smaller than the first angle to a third position, and
- allowing the hinge to maintain the first hinge part in the third position.